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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,096	07/24/2003	Toshiki Hirano	HSJ920030046US1	2245
36023	7590	10/31/2006	EXAMINER	
HITACHI GLOBAL STORAGE TECHNOLOGIES, INC. 5600 COTTLE ROAD, NHGB/0142 IP DEPARTMENT SAN JOSE, CA 95193			MILLER, BRIAN E	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/627,096

Applicant(s)

HIRANO ET AL.

Examiner

Brian E. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,8-12,18-23 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-12,18-23 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claims 1-2, 8-12, 18-20, 22-23, 29-31 are now pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-2, 8-12, 18-20, 22-23, 29-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (a) Claim 1 (and similarly for claims 11, 22) the language “by a microactuator structure” renders the claims indefinite and incomplete because there is no structural cooperation between the “microactuator structure” and other elements of the claim(s). It is not readily apparent how the recited structure permits such movement; (b) claim 8 (and similarly for claims 18, 29) the language “wherein the micro-fabricated chip is a microactuator” is indefinite as it is not readily apparent whether the “microactuator” recited in claim 8 (and 18, 29) is the same or different than the “microactuator structure” recited in claim 1 (and 11, 22).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-2, 8-12, 18-20, 22-23, 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Boutaghou et al (US 6,069,771) Boutaghou et al discloses a “micro-fabricated chip”, as shown in FIGs. 2A-2B, comprising: (with respect to claim 1) a stationary structure including 38a/32/31; and a movable structure 38b having a gimbal structure 33/34, the gimbal structure allowing pitch and roll motion of the movable structure with respect to the stationary structure (see also col. 2, lines 40-65); (as per claim 2) wherein the gimbal structure includes a dimple surface, e.g., on the top surface of the slider making a rolling-type contact with the stationary structure 31; (as per claim 8) wherein the micro-fabricated chip is a microactuator, e.g., 38a, 38b; (as per claim 9) wherein the movable structure moves in a rotational direction, i.e., about axis 36, with respect to the stationary structure (see col. 2, lines 59-62).

(As per claim 11) Boutaghou et al discloses a suspension 32 for a disk drive, comprising: a load beam 32; a micro-fabricated chip having a stationary structure 38a and a movable structure 38b having a gimbal structure 33/34, the stationary structure 38a being attached to the load beam 32 and the gimbal structure 33/34 allowing pitch and roll motion of the movable structure with respect to the stationary structure; and a slider 34, e.g., considered part of the gimbal structure, attached to the movable structure; (as per claim 12) wherein the gimbal structure includes a dimple surface, e.g., top of slider 34, making a rolling-type contact with the stationary structure 31; (as per claim 18) wherein the micro-fabricated chip is a microactuator 38; (as per claim 19) wherein the movable structure and the slider move in a rotational direction with respect to the stationary structure (see col. 2, lines 59-62).

As claims 22-23, 29-30 include similar limitations to the claims as described above, they are rejected under the same grounds.

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With respect to claims 10, 20 and 31, Boutaghou et al further discloses the movable structure moves in a translational direction with respect to the stationary structure (refer to FIGs. 3A, 3B and col. 3, lines 29-58).

Response to Arguments

5. Applicant's arguments filed 8/8/06 have been fully considered but they are not persuasive in so far as the limitations are claimed.

A...Applicant asserts that “the Boutaghou reference does not disclose the microactuator positioning the gimbal in the pitch and roll directions. In fact, the Boutaghou reference teaches only moving the gimbal in a single plane because it uses existing micromotor designs that simplify design. (Boutaghou, col. 4, lines 2-6).”

In response, the Examiner considers that the pending claims do not specifically set forth this feature and it is maintained that the gimbal structure in Boutaghou, as interpreted by the Examiner, has the ability to pitch and roll as known in the art. The specific structure of the to permit such pitch and roll movements is simply not recited in the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'B E Miller', with a stylized flourish at the end.

Brian E. Miller
Primary Examiner
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BEM
October 30, 2006